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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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Uwe Sydon

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06/17/2004

Siemens Corporation
Intellectual Property Department
186 Wood Avenue South
Iselin, NJ 08830

EXAMINER

NGUYEN, STEVEN H D

ART UNIT

PAPER NUMBER

2665

DATE MAILED: 06/17/2004

2

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/754,905

Applicant(s)

SYDON ET AL.

Examiner

Steven HD Nguyen

Art Unit

2665

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 04 January 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-25 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-25 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1-25 are rejected under 35 U.S.C. 102(b) as being anticipated by Miyake (USP 5903618).

Regarding claim 1, Miyake discloses (Figs 1-22 and col. 1, lines 5 to col. 13, lines 5) a cordless communication system comprising a central unit (Fig 1, Ref 10); and at least two remote units (Fig 1, Ref 18), said at least two remote units being capable of radio frequency communication with said central unit and other of said at least two remote units; wherein said central unit is capable of assigning a dedicated communication channel for enabling direct communication between selected ones of said at least two remote units (Figs 10-11, 15-16 and col. 9, lines 19-42 and col. 2, lines 4-67).

Regarding claim 2, Miyake discloses each of said at least two remote units is further capable of communication with another of said at least two remote units via a radio frequency connection relayed through said central unit (Col 2, lines 4-10).

Regarding claims 3 and 12, Miyake discloses each of said remote units synchronize to said central unit (Col. 2, lines 61-67).

Regarding claims 4 and 13, Miyake discloses a first of said at least two remote units is capable of providing a request to said central unit for a direct connection with a second of said at least two remote units (Fig 10, Ref 12).

Regarding claims 5 and 14, Miyake discloses upon receiving a request from said first remote unit, said central unit assigns a dedicated communication channel for enabling direct communication between said first and second remote units, said second remote unit synchronizing to said first remote unit (Figs 10-11, 15-16 and col. 9, lines 19-42 and col. 2, lines 4-67).

Regarding claims 6 and 15, Miyake discloses said radio communication comprises time division duplex connections utilizing a time division multiple access (TDMA) scheme (col. 8, lines 1-21).

Regarding claims 7, 16 and 24, Miyake discloses said radio communication comprises a frequency hopping spread spectrum (FHSS) scheme and said central unit assigns the dedicated communication channel by assigning a specific hop sequence to selected ones of said at least two remote units (col. 8, lines 1-21 and col. 9, lines 19-42).

Regarding claims 8, 17 and 25, Miyake discloses said radio frequency communication comprises direct sequence spread spectrum (DSSS) scheme and said central unit assigns said dedicated communication channel by assigning a specific spreading code to selected ones of said at least two remote units (Col. 4, lines 47 to col. 5, lines 8 and col. 9, lines 19-42).

Regarding claims 9, 18, Miyake discloses said central unit provides an interface for interfacing the communication system with a network (Fig 1).

Regarding claims 10, 19, Miyake discloses the network comprises at least one of a public switched telephone network (PSTN), an integrated services digital network (ISDN), the Internet, and an Intranet (Col. 4, lines 30-46).

Regarding claim 11, Miyake discloses (Figs 1-22 and col. 1, lines 5 to col. 13, lines 5) a cordless communication system, comprising a central unit (Fig 1, Ref 10); and at least two remote units capable of radio frequency communication with said central unit (Fig 1, Ref 10 and 18); wherein each of said at least two remote units is capable of communication with another of said at least two remote units via a radio frequency connection relayed through said central unit (Col 2, lines 4-10); and wherein a first of said at least two remote units is further capable of communication with a second of said at least two remote units via a dedicated radio frequency connection assigned by said central unit for enabling direct communication between said first remote unit and said second remote unit (Figs 10-11, 15-16 and col. 9, lines 19-42 and col. 2, lines 4-67).

Regarding claim 20, Miyake discloses (Figs 1-22 and col. 1, lines 5 to col. 13, lines 5) a method for providing direct radio frequency communication between remote units in a cordless communication system, comprising providing a request to a central unit for direct radio frequency communication between a first remote unit and a second remote unit (Figs 10 and 15, Ref 12); and initiating a direct connection between the first remote unit and the second remote unit via a dedicated communication channel assigned to the first remote unit and the second remote unit by the central unit (Figs 10-11, 15-16 and col. 9, lines 19-42 and col. 2, lines 4-67).

Regarding claim 21, Miyake discloses further comprising determining that communication between the first remote unit and the second remote unit has ended; and

terminating the direct connection between the first remote unit and the second remote unit (Figs 11 and 15, Ref 54, 56, 58, 60 and 62, col. 9, lines 19-42).

Regarding claim 22, Miyake discloses wherein determining that communication between the first remote unit and the second remote unit has ended comprises providing an indication to the central unit that communication between the first remote unit and the second remote unit has ended (Figs 11 and 15, Ref 54, 56, 58, 60 and 62, col. 9, lines 19-42).

Regarding claim 23, Miyake discloses initiating a direct connection between the first remote unit and the second remote unit comprises assigning the dedicated communication channel (col. 9, lines 19-42).

3. Claims 1-2, 4, 6, 11, 13, 15 and 20 are rejected under 35 U.S.C. 102(b) as being anticipated by Gary (GB 2336070).

Gary discloses (Figs 1-2 and page 1-14) a system such TDMA comprising a central unit (Fig 1, Ref 14) for receiving a request for establishing a direct mode between first and second mobile (Fig 1, Ref 10 and 12) by assigning a channel for the mobiles to communicate in direct mode (Page 5, lines 4-17) and the mobiles are capable communicated via central unit (Fig 1, Ref 14 is central unit, Ref 10 and 12 are mobiles, page 5, lines 4 to page 6, lines 4, page 7, lines 22 to page 8, lines 32, page 12, lines 12-19).

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person

Art Unit: 2665

having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

5. Claims 3, 5, 7-10, 12, 14, 16-19 and 21-25 rejected under 35 U.S.C. 103(a) as being unpatentable over Gary in view of Miyake (USP 5903618).

Gary fails to disclose the claimed invention. In the same field of endeavor, Miyake discloses each of said remote units synchronize to said central unit (Col. 2, lines 61-67); upon receiving a request from said first remote unit, said central unit assigns a dedicated communication channel for enabling direct communication between said first and second remote units, said second remote unit synchronizing to said first remote unit (Figs 10-11, 15-16 and col. 9, lines 19-42 and col. 2, lines 4-67); said radio communication comprises a frequency hopping spread spectrum (FHSS) scheme and said central unit assigns the dedicated communication channel by assigning a specific hop sequence to selected ones of said at least two remote units (col. 8, lines 1-21 and col. 9, lines 19-42); said radio frequency communication comprises direct sequence spread spectrum (DSSS) scheme and said central unit assigns said dedicated communication channel by assigning a specific spreading code to selected ones of said at least two remote units (Col. 4, lines 47 to col. 5, lines 8 and col. 9, lines 19-42); said central unit

Art Unit: 2665

provides an interface for interfacing the communication system with a network (Fig 1); the network comprises at least one of a public switched telephone network (PSTN), an integrated services digital network (ISDN), the Internet, and an Intranet (Col. 4, lines 30-46); determining that communication between the first remote unit and the second remote unit has ended; and terminating the direct connection between the first remote unit and the second remote unit (Figs 11 and 15, Ref 54, 56, 58, 60 and 62, col. 9, lines 19-42); determining that communication between the first remote unit and the second remote unit has ended comprises providing an indication to the central unit that communication between the first remote unit and the second remote unit has ended (Figs 11 and 15, Ref 54, 56, 58, 60 and 62, col. 9, lines 19-42); initiating a direct connection between the first remote unit and the second remote unit comprises assigning the dedicated communication channel (col. 9, lines 19-42).

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention was made to apply synchronization the mobile, DSSS, FHSS and interface for connecting to another network as disclosed by Miyake's system and method into Gary's system and method. The motivation would have been to increase the throughput of the system.

Conclusion

6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Miyake (USP 6678341) discloses a multimode radio communication system.

Stobart (USP 20010017864) discloses a synchronous TDD system for trunk and direct mode.

Art Unit: 2665

Frian (USP 6047178) discloses a method and system for performing a direct and trunk mode.

Wellig (USP 6580704) discloses a method and system for performing a direct and trunk mode.

Izumi (USP 6032049) discloses a method and system for using direct mode in FH.

Morvan (USP 6574452) discloses a method and system for performing a direct and trunk mode.

Lopponen (USP 5781860) discloses a multimode radio communication system.

Capece (USP 6415146) discloses for performing a direct and trunk mode.

David (GB 2319436) discloses a method and system for performing a direct and trunk mode.

Myer (USP 6532369) discloses a method and system for performing a direct and trunk mode.

Ma (USP 5995500) a method and system for performing a direct and trunk mode.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Steven HD Nguyen whose telephone number is (703) 308-8848.

The examiner can normally be reached on 8-5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Huy D Vu can be reached on (703) 308-6602. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Art Unit: 2665

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Steven HD Nguyen
Primary Examiner
Art Unit 2665
6/9/04
